

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of:

BHASKARAN *et al.*

Appl. No.: 10/743,295

Filed: December 23, 2003

For: **Polymer Conjugates of Cytokines,  
Chemokines, Growth Factors,  
Polypeptide Hormones and  
Antagonists Thereof with Preserved  
Receptor-Binding Activity**

Confirmation No.: 7998

Art Unit: 1641

Examiner: *To Be Assigned*

Atty. Docket: 2057.0060002/JAG/BJD

**Information Disclosure Statement  
under 37 C.F.R. § 1.97(b)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. Copies of the documents are submitted herewith.

No copies of U.S. patents and patent application publications cited on the attached Form PTO-1449 are submitted herewith in accordance with 1276 OG 55, because this application was filed after June 30, 2003.

In accordance with 37 C.F.R. § 1.98(a)(3)(i), Applicants' undersigned representative submits the following concise explanation of the non-English language document AP4 cited on Form PTO-1449:

Document AP4, PCT Patent Publication No. WO 04/046222 A1, is in the Japanese language. An English language abstract of document AP4 appears on its face page.

Applicants would like to bring to the Examiner's attention documents AR30, Schein, C.H., and AS35, Youngster, S., for which the month of publication could not be determined after diligent attempts. Applicants note that the first filing date in the present matter is December 26, 2002, which would imply that all documents published in 2001 and later should have the month of publication listed on the Form PTO-1449 as well. If the Examiner has information indicating the month of publication of either or both of documents AR30 and/or AS35, Applicants respectfully request that that information be made of record in the present matter.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

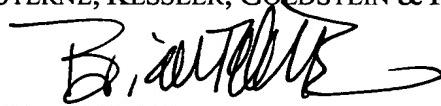
This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Brian J. Del Buono  
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Date: Sept. 28, 2004

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♦Practice Limited to  
Federal Agencies

September 28, 2004

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 1641**

Re: U.S. Utility Patent Application  
Application No. 10/743,295; Filed: December 23, 2003  
For: **Polymer Conjugates of Cytokines, Chemokines, Growth Factors, Polypeptide Hormones and Antagonists Thereof with Preserved Receptor-Binding Activity**  
Inventors: BHASKARAN *et al.*  
Our Ref: 2057.0060002/JAG/BJD

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement Under 37 C.F.R. § 1.97(b);
2. 36 pages of Form PTO-1449;
3. Copies of the non-U.S. cited documents (126 documents: **AL1-AL5** and **AR1-AR36**);
4. First Supplemental Information Disclosure Statement Under 37 C.F.R. § 1.97(b);
5. 5 pages of Form PTO-1449;
6. Copies of the non-U.S. cited documents (14 documents: **AM5**, **AN5** and **AS36-AR40**); and
7. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are

Commissioner for Patents  
September 28, 2004  
Page 2

necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

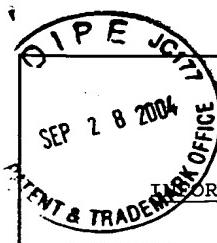
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono  
Attorney for Applicants  
Registration No. 42,473

BJD/nef  
Enclosures

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FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
2057.0060002/JAG/BJDAPPLICATION NO.  
10/743,295APPLICANT  
BHASKARAN et al.FILING DATE  
December 23, 2003GROUP  
1641

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG8	4,766,106	08/23/1988	Katre et al.			01/25/1988
	AH8	4,847,325	07/11/1989	Shadle et al.			01/20/1988
	AI8	4,917,888	04/17/1990	Katre et al.			12/11/1987
	AJ8	6,638,500 B1	10/28/2003	El-Tayar et al.			10/30/2000
	AK8	2004/0043002 A1	03/04/2004	El-Tayar et al.			08/28/2003

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM5	EP 0 229 108 B1	06/06/1986	Europe			Yes No
	AN5	WO 87/00056	06/06/1986	WIPO			Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR			
AS	<u>36</u>	Acharya, A.S., et. al., "Selectivity in the Modification of the $\alpha$ -Amino Groups of Hemoglobin on Reductive Alkylation with Aliphatic Carbonyl Compounds," <i>J. Biol. Chem.</i> 260:6039-6046, The American Society of Biological Chemistists, Inc. (1985)	
AT	<u>36</u>	Bayer, E., et. al., "Functionalization of Soluble Polymers: 4. Synthesis of Dichloro- and Di(4-Formylphenyloxyethyl) Poly(Oxyethylene)," <i>Polymer Bulletin</i> 8:585-592, Springer-Verlag (1982)	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449	ATTY. DOCKET NO. 2057.0060002/JAG/BJD	APPLICATION NO. 10/743,295
<u>FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>		APPLICANT BHASKARAN et al.
FILING DATE December 23, 2003		GROUP 1641

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
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**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>37</u>	Bayer, E., et. al., "Functionalization of Soluble Polymers: 6. Preparation and Kinetic Aspects of Linear, Hydrophilic Aldehydes Based on Poly(Oxyethylene)," <i>Polymer Bulletin</i> 13:431-434, Springer-Verlag (1985)
	AS	<u>37</u>	Chamow, S.M., et. al., "Modification of CD4 Immunoadhesin with Monoethoxypoly(ethylene glycol) Aldehyde via Reductive Alkylation," <i>Bioconjugate Chem.</i> 5:133-140, American Chemical Society (1994)
	AT	<u>37</u>	Friedman, M., et. al., "Reductive Alkylation of Proteins with Aromatic Aldehydes and Sodium Cyanoborohydride," <i>Int. J. Peptide Protein Res.</i> 6:183-185, Munksgaard Internation Publishers (1974)

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		APPLICANT BHASKARAN et al.	
		FILING DATE December 23, 2003	GROUP 1641

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FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>38</u>	Harris, J.M., et. al., "New Polyethylene Glycols for Biomedical Applications," in <i>Water-Soluble Polymers: Synthesis, Solution Properties, and Applications</i> , Shalaby, S.W., et al., eds., 198 <sup>th</sup> National Meeting of the American Chemical Society, Miami, Florida, pp. 418-429 (1989)
	AS	<u>38</u>	Harris, J.M., et. al., "Synthesis and Characterization of Poly(ethylene Glycol) Derivatives," <i>Journal of Polymer Science</i> 22:341-352, Polymer Chemistry Edition (1984)
	AT	<u>38</u>	Means, G.E., and Feeney, R.E., "Review: Reductive Alkylation of Proteins," <i>Anal. Biochem.</i> 224:1-16, Academic Press, Inc. (1995)

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>39</u>	Means, G.E., and Feeney, R.E., "Alkylation and similar reagents," in <i>Chemical Modification of Proteins</i> , Holden-Day, Inc., San Francisco, CA, pp. 105-138 (1971)
	AS	<u>39</u>	Royer, G.P., "Immobilization of Enzymes on Aldehydic Matrices by Reductive Alyklylation," <i>Biochemical and Biophysical Research Communications</i> 64:478-484, Academic Press, Inc. (1975)
	AT	<u>39</u>	Zalipsky, S., "Functionalized Polymers and Their Biologically-Relevant Conjugates," in <i>Biomedical Functions and Biotechnology of Natural and Artificial Polymers</i> , Yalpani, M., ed., ATL Press, Shrewsbury, MA, pp.63-76 (1996)

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		APPLICANT BHASKARAN et al.			
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	AA						
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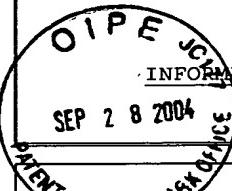
FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER	INITIAL	DATE	DESCRIPTION OF OTHER				
	AR	40	Copy of co-pending Taiwanese Application No. 92136592, inventors Bhaskaran, S.S., et al., filed December 23, 1992 (NOT PUBLISHED)				
	AS						
	AT						

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FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
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1641

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	4,002,531	01/11/1977	Royer			01/22/1976
	AB1	4,179,337	12/18/1979	Davis et al.			07/28/1977
	AC1	4,261,973	04/14/1981	Lee et al.			08/08/1977
	AD1	4,301,144	11/17/1981	Iwashita et al.			07/10/1980
	AE1	4,462,946	07/31/1984	Hanisch et al.			05/18/1983
	AF1	4,609,546	09/02/1986	Hiratani			06/23/1983
	AG1	4,732,863	003/22/1988	Tomasi et al.			12/31/1984
	AH1	4,816,440	03/28/1989	Thomson			09/26/1985
	AI1	4,894,330	01/16/1990	Hershenson et al.			12/23/1986
	AJ1	4,902,502	02/20/1990	Nitecki et al.			01/23/1989
	AK1	4,904,584	02/27/1990	Shaw			12/23/1987

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	EP 0 098 110 B1	10/18/1989	Europe			Yes No
	AM1	EP 0 733 067 B1	05/12/1999	Europe			Yes No
	AN1	EP 1 039 922 B1	06/12/2002	Europe			Yes No
	AO1	EP 0 822 199 A2 and A3	02/04/1998	Europe			Yes No
	AP1	WO 89/01033 A1	02/09/1989	WIPO			Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	1	Abuchowski, A., et al., "Immunosuppressive properties and circulating life of Achromobacter glutaminase-asparaginase covalently attached to polyethylene glycol in man," <i>Cancer Treat Rep</i> 65:1077-1081, Kluwer Academic (1981)
AS	1	Abuchowski, A., et al., "Cancer therapy with chemically modified enzymes. I. Antitumor properties of polyethylene glycol-asparaginase conjugates," <i>Cancer Biochem Biophys</i> 7:175-186, Gordon & Breach (1984)
AT	1	Abuchowski, A., et al., "Effect of covalent attachment of polyethylene glycol on immunogenicity and circulating life of bovine liver catalase," <i>J Biol Chem</i> 252:3582-3586, The American Society for Biochemistry and Molecular Biology (1977)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>			ATTY. DOCKET NO. 2057.0060002/JAG/BJD	APPLICATION NO. 10/743,295
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2	5,006,333	04/09/1991	Saifer et al.			07/13/1989
	AB2	5,080,891	01/14/1992	Saifer et al.			08/01/1990
	AC2	5,091,176	02/25/1992	Braatz et al.			04/24/1990
	AD2	5,122,614	06/16/1992	Zalipsky			04/19/1990
	AE2	5,206,344	04/27/1993	Katre et al.			01/11/1988
	AF2	5,219,564	06/15/1993	Zalipsky et al.			07/05/1991
	AG2	5,252,714	10/12/1993	Harris et al.			11/28/1990
	AH2	5,281,698	01/25/1994	Nitecki			07/23/1991
	AI2	5,283,317	02/01/1994	Saifer et al.			10/11/1991
	AJ2	5,324,844	06/28/1994	Zalipsky			01/08/1992
	AK2	5,349,052	09/20/1994	Delgado et al.			05/12/1993

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2	WO 89/05824 A1	06/29/1989	WIPO			Yes No
	AM2	WO 92/16555 A1	10/01/1992	WIPO			Yes No
	AN2	WO 96/40731 A1	12/19/1996	WIPO			Yes No
	AO2	WO 96/11953 A1	04/25/1996	WIPO			Yes No
	AP2	WO 99/45026 A1	12/19/1996	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>2</u>	Amoui, M., et al., "Differential phosphorylation of IRS-1 by insulin and insulin-like growth factor I receptors in Chinese hamster ovary cells," <i>J Endocrinol</i> 171:153-162, Society for Endocrinology (October 2001)	
AS	<u>2</u>	Arduini, R. M., et al., "Expression, purification, and characterization of rat interferon-beta, and preparation of an N-terminally PEGylated form with improved pharmacokinetic parameters," <i>Protein Expr Purif</i> 34: 229-242, Academic Press, Inc. (April 2004)	
AT	<u>2</u>	Bailon, P., et al., "Rational design of a potent, long-lasting form of interferon: A 40 kDa branched polyethylene glycol-conjugated interferon alpha-2a for the treatment of hepatitis C," <i>Bioconjug Chem</i> 12:195-202, American Chemical Society (March-April 2001)	

EXAMINER	DATE CONSIDERED
<b>EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>			ATTY. DOCKET NO. 2057.0060002/JAG/BJD	APPLICATION NO. 10/743,295
			APPLICANT BHASKARAN et al.	FILING DATE December 23, 2003

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3	5,362,852	11/08/1994	Geoghegan et al.			09/27/1991
	AB3	5,382,657	01/17/1995	Karasiewicz et al.			08/26/1992
	AC3	5,395,619	03/07/1995	Zalipsky et al.			03/03/1993
	AD3	5,449,090	08/29/1995	Harris			11/12/1993
	AE3	5,468,478	11/21/1995	Saifer et al.			10/18/1993
	AF3	5,476,653	12/19/1995	Pitt et al.			03/22/1995
	AG3	5,539,063	07/23/1996	Hakimi et al.			06/01/1995
	AH3	5,605,976	02/25/1997	Martinez et al.			05/15/1995
	AI3	5,612,460	03/18/1997	Zalipsky			02/17/1994
	AJ3	5,643,575	07/01/1997	Martinez et al.			10/27/1993
	AK3	5,672,662	09/30/1997	Harris et al.			10/02/1995

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3	WO 99/55377 A2	11/04/1999	WIPO			Yes No
	AM3	WO 99/58142 A1	11/18/1999	WIPO			Yes No
	AN3	WO 00/07629 A2 and A3	02/17/2000	WIPO			Yes No
	AO3	WO 00/23114 A2 and A3	04/27/2000	WIPO			Yes No
	AP3	WO 01/02017 A2 and A3	01/11/2001	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>3</u>	Bamborough, P., et al., "The interleukin-2 and interleukin-4 receptors studied by molecular modeling," <i>Structure</i> 2:839-851, Elsevier Science Ltd. (1994)	
AS	<u>3</u>	Basser, R.L., et al., "Development of pancytopenia with neutralizing antibodies to thrombopoietin after multicycle chemotherapy supported by megakaryocyte growth and development factor," <i>Blood</i> 99:2599-2602, The American Society of Hematology (April 2002)	
AT	<u>3</u>	Bertolotto, A., et. al., "Differential effects of three interferon betas on neutralising antibodies in patients with multiple sclerosis: a follow up study in an independent laboratory," <i>J. Neurol. Neurosurg. Psychiatry.</i> 73:148-153, BMJ Publishing Group (April 2002)	

EXAMINER	DATE CONSIDERED
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			FILING DATE December 23, 2003	GROUP 1641

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA4	5,681,567	10/28/1997	Martinez et al.			08/13/1996
	AB4	5,711,944	01/27/1998	Gilbert et al.			11/10/1994
	AC4	5,730,990	03/24/1998	Greenwald et al.			06/05/1995
	AD4	5,738,846	04/14/1998	Greenwald et al.			11/21/1995
	AE4	5,739,208	04/14/1998	Harris			06/07/1995
	AF4	5,747,646	05/05/1998	Hakimi et al.			06/01/1995
	AG4	5,756,593	05/26/1998	Martinez et al.			06/27/1997
	AH4	5,770,577	06/23/1998	Kinstler et al.			11/14/1994
	AI4	5,792,834	08/11/1998	Hakimi et al.			06/01/1995
	AJ4	5,808,096	09/15/1998	Zalipsky			01/21/1997
	AK4	5,824,784	10/20/1998	Kinstler et al.			10/12/1994

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL4	WO 01/59078 A2 and A3	08/16/2001	WIPO			Yes No
	AM4	WO 02/032957 A1	04/25/2002	WIPO			X Yes No
	AN4	WO 02/049673 A2	06/27/2002	WIPO			Yes No
	AO4	WO 03/031581 A2	04/17/2003	WIPO			Yes No
	AP4	WO 04/046222 A1	06/03/2004	WIPO			Yes X No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>4</u>	Bowen, S., et al., "Relationship between molecular mass and duration of activity of polyethylene glycol conjugated granulocyte colony-stimulating factor mutein," <i>Exp Hematol</i> 27:425-432, Elsevier Science Inc. (1999)	
AS	<u>4</u>	Brenner, B.M., et al., "Glomerular permselectivity: Barrier function based on discrimination of molecular size and charge," <i>Am J Physiol</i> 234:F455-F460, American Physiological Society (1978)	
AT	<u>4</u>	Bruchelt, G., et al., "Determination of 2'-5'-oligoadenylylate synthetase in serum and peripheral blood mononuclear cells before and after subcutaneous application of recombinant interferon beta and gamma," <i>Eur J Clin Chem Clin Biochem</i> 30:521-528, Walter de Gruyter & Co. (1992)	

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	AA5	5,834,594	11/10/1998	Hakimi et al.			06/01/1995
	AB5	5,849,860	12/15/1998	Hakimi et al.			06/01/1995
	AC5	5,880,255	03/09/1999	Delgado et al.			04/14/1995
	AD5	5,889,153	03/30/1999	Suzuki et al.			03/14/1997
	AE5	5,900,461	05/04/1999	Harris			02/23/1998
	AF5	5,902,588	05/11/1999	Greenwald et al.			11/19/1997
	AG5	5,919,455	07/06/1999	Greenwald et al.			03/20/1997
	AH5	5,932,462	08/03/1999	Harris et al.			05/17/1995
	AI5	5,985,263	11/16/1999	Lee et al.			12/19/1997
	AJ5	5,985,265	11/16/1999	Kinstler et al.			06/20/1997
	AK5	5,990,237	11/23/1999	Bentley et al.			05/20/1998

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL5	WO 04/060299 A2	07/22/2004	WIPO			Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	5	Brzozowski, A.M., et al., "Structural origins of the functional divergence of human insulin-like growth factor-I and insulin," <i>Biochemistry</i> 41:9389-9397, American Chemical Society (July 2002)
AS	5	Bunn, P.A., et al., "Epidermal growth factor receptor expression, signal pathway, and inhibitors in non-small cell lung cancer," <i>Semin Oncol</i> 29:38-44, W.B. Saunders Company (October 2002)
AT	5	Cabacungan, J.C., et al., "Amine boranes as alternative reducing agents for reductive alkylation of proteins," <i>Anal Biochem</i> 124:272-278, Academic Press, Inc. (1982)

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA6	6,042,822	03/28/2000	Gilbert et al.			04/06/1999
	AB6	6,077,939	06/20/2000	Wei et al.			08/04/1997
	AC6	6,132,763	10/17/2000	Fisher			06/02/1995
	AD6	6,340,742 B1	01/22/2002	Burg et al.			06/28/2000
	AE6	6,384,195 B1	05/07/2002	Delgado et al.			01/21/1999
	AF6	6,423,685 B1	07/23/2002	Drummond et al.			03/05/1999
	AG6	6,455,639 B1	09/24/2002	Yasukohchi et al.			03/23/1999
	AH6	6,576,235 B1	06/10/2003	Williams, et al.			08/06/1999
	AI6	2001/0016191 A1	08/23/2001	Osslund			01/03/2001
	AJ6	2002/0127244 A1	09/12/2002	Delgado et al.			03/12/2002
	AK6	2003/0021765 A1	01/30/2003	Pepinsky et al.			04/11/2001

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>6</u>	Carpenter, G., et al., "Epidermal growth factor," J Biol Chem 265:7709-7712, The American Society for Biochemistry and Molecular Biology (1990)	
AS	<u>6</u>	Chander, G., et al., "Treatment of chronic hepatitis C: A systematic review," Hepatology 36:S135-S144, Wiley (November 2002)	
AT	<u>6</u>	Chapman, A.P., "PEGylated antibodies and antibody fragments for improved therapy: A review," Adv Drug Deliv Rev 54:531-545, Elsevier Science B.V. (June 2002)	

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	AA8	2003/01505224 A1	06/05/2003	Roberts et al.			10/09/2001
	AB8	2003/0105224 A1	06/05/2003	Roberts et al.			10/09/2001
	AC8	2004/0062746 A1	04/01/2004	Martinez et al.			09/25/2003
	AD8	2004/0126361 A1	07/01/2004	Saifer et al.			12/23/2003
	AE8	2004/0136952 A1	07/15/2004	Bhaskaran et al.			12/23/2003
	AF8	H001662	07/01/1997	Nishimura et al.			04/05/1990
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	7	Chen, S.A., et al., "Plasma and lymph pharmacokinetics of recombinant human interleukin-2 and polyethylene glycol-modified interleukin-2 in pigs," <i>J Pharmacol Exp Ther</i> 293:248-259, The American Society for Pharmacology and Experimental Therapeutics (2000)	
AS	7	Chen, W.Y., et al., "A human prolactin antagonist, hPRL-G129R, inhibits breast cancer cell proliferation through induction of apoptosis," <i>Clin Cancer Res</i> 5:3583-3593, The American Association for Cancer Research (1999)	
AT	7	Childs, C.E., "The determination of polyethylene glycol in gamma globulin solutions," <i>Microchem J</i> 20:190-192, Academic Press, Inc. (1975)	

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

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AR	<u>8</u>	Clark, R., et al., "Long-acting growth hormones produced by conjugation with polyethylene glycol," <i>J Biol Chem</i> 271:21969-21977, The American Society for Biochemistry and Molecular Biology (1996)	
AS	<u>8</u>	Crouch, M.F., et al., "Activation of endogenous thrombin receptors causes clustering and sensitization of epidermal growth factor receptors of Swiss 3T3 cells without transactivation," <i>J Cell Biol</i> 152:263-273, Rockefeller University Press (January 2001)	
AT	<u>8</u>	Davis, S., et al., "Alteration of the circulating life and antigenic properties of bovine adenosine deaminase in mice by attachment of polyethylene glycol," <i>Clin Exp Immunol</i> 46:649-652, Blackwell Scientific Publications (1981)	

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	AL						Yes No
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EXAMINER							
	AR	9		Dixon, H.B.F., et al. "N-Terminal modification of proteins - A review," <i>J Protein Chem</i> 3:99-108, Plenum Publishing Corporation (1984)			
	AS	9		Durelli, L., et. al., "Every-other-day interferon beta-1b versus once-weekly interferon beta-1a for multiple sclerosis: results of a 2-year prospective randomised multicentre study (INCOMIN)," <i>The Lancet</i> 359:1453-1460, Lancet Publishing Group (April 2002)			
	AT	9		Edsall, J.T., "Dipolar ions and acid-base equilibria," In: <i>Proteins, Amino Acids and Peptides as Ions and Dipolar Ions</i> , Cohn, E.J. et al., eds., Reinhold Publishing Corporation, N.Y., pp. 75-115 (1943)			
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>10</u>	Edsall, J.T., "Some relations between acidity and chemical structure," In: <i>Proteins, Amino Acids and Peptides as Ions and Dipolar Ions</i> , Cohn, E.J. et al., eds., Reinhold Publishing Corporation, N.Y., pp. 116-139 (1943)				
	AS	<u>10</u>	Fuke, I., et al., "Synthesis of poly(ethylene glycol) derivatives with different branchings and their use for protein modification," <i>J Control Release</i> 30:27-34, Elsevier Science B.V. (1994)				
	AT	<u>10</u>	Gaertner, H.F., et al., "Site-specific attachment of functionalized poly(ethylene glycol) to the amino terminus of proteins," <i>Bioconjug Chem</i> 7:38-44, American Chemical Society (1996)				
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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER							
	AR	<u>11</u>		Geoghegan, K.F., et al., "Site-directed conjugation of nonpeptide groups to peptides and proteins via periodate oxidation of a 2-amino alcohol. Application to modification at N-terminal serine," <i>Bioconjug Chem</i> 3:138-146, American Chemical Society (1992)			
	AS	<u>11</u>		Goffin, V., et al., "The prolactin/growth hormone receptor family: Structure/function relationships," <i>J Mammary Gland Biol Neoplasia</i> 2:7-17, Kluwer Academic/Plenum Publishers (1997)			
	AT	<u>11</u>		Goodson, R.J., et al., "Site-directed PEGylation of recombinant interleukin-2 at its glycosylation site," <i>Bio/technology</i> 8:343-346, Nature Publishing Co. (1990)			
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>12</u>	Grace, M., et al., "Structural and biologic characterization of pegylated recombinant IFN-alpha2b," <i>J Interferon Cytokine Res</i> 21:1103-1115, Mary Ann Liebert, Inc. (December 2001)
	AS	<u>12</u>	Guerra, P.I., et al., "PEGylation prevents the N-terminal degradation of megakaryocyte growth and development factor," <i>Pharm Res</i> 15:1822-1827, Plenum Publishing Corporation (1998)
	AT	<u>12</u>	Hershfield, M.S., et al., "Treatment of adenosine deaminase deficiency with polyethylene glycol-modified adenosine deaminase," <i>N Engl J Med</i> 316:589-596, Massachusetts Medical Society (1987)

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>13</u>	Hinds, K., et al., "Synthesis and characterization of poly(ethylene glycol)-insulin conjugates," <i>Bioconjug Chem</i> 11:195-201, American Chemical Society (2000)
	AS	<u>13</u>	Hjelm Skog, A.-L., et al., "Alteration of interleukin 2 (IL-2) pharmacokinetics and function by IL-2 antibodies induced after treatment of colorectal carcinoma patients with a combination of monoclonal antibody 17-1A, granulocyte macrophage colony-stimulating factor, and IL-2," <i>Clin Cancer Res</i> 7:1163-1170, The American Association for Cancer Research (May 2001)
	AT	<u>13</u>	The IFNB Multiple Sclerosis Study Group. "Neutralizing antibodies during treatment of multiple sclerosis with interferon beta-1b: Experience during the first three years," <i>Neurology</i> 47:889-894, The American Academy of Neurology (1996)

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/	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
EXAMINER		DATE	CONSIDERED
AR	<u>14</u>	Hymowitz, S.G., et al., "A unique zinc-binding site revealed by a high-resolution X-ray structure of homotrimeric Apo2L/TRAIL," <i>Biochemistry</i> 39:633-640, American Chemical Society (2000)	
AS	<u>14</u>	Josephson, K., et al., "Design and analysis of an engineered human interleukin-10 monomer," <i>J Biol Chem</i> 275:13552-13557, The American Society for Biochemistry and Molecular Biology (2000)	
AT	<u>14</u>	Karpusas, M., et al., "The crystal structure of human interferon beta at 2.2-Å resolution," <i>Proc Natl Acad Sci U S A</i> 94:11813-11818, National Academy of Sciences (1997)	

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	<b>APPLICANT</b> <b>BHASKARAN et al.</b>	
	<b>FILING DATE</b> <b>December 23, 2003</b>	<b>GROUP</b> <b>1641</b>

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>15</u>	Karpusas, M., et al., "The structure of human interferon-beta: Implications for activity," <i>Cell Mol Life Sci</i> 54:1203-1216, Birkhäuser Verlag, Basel (1998)
	AS	<u>15</u>	Katre, N.V., "Immunogenicity of recombinant IL-2 modified by covalent attachment of polyethylene glycol," <i>J Immunol</i> 144:209-213, American Association of Immunologists (1990)
	AT	<u>15</u>	Kelly, S.J., et al., "Diabetes insipidus in uricase-deficient mice: A model for evaluating therapy with poly(ethylene glycol)-modified uricase," <i>J Am Soc Nephrol</i> 12:1001-1009, Lippincott Williams & Wilkins (May 2001)
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>16</u>	Kinstler, O.B., et al., "Characterization and stability of N-terminally PEGylated rhG-CSF," <i>Pharm Res</i> , 13:996-1002, Plenum Publishing Corporation (1996)
	AS	<u>16</u>	Kinstler, O., et al. "Mono-N-terminal poly(ethylene glycol)-protein conjugates," <i>Adv Drug Deliv Rev</i> 54:477-485, Elsevier Science B.V. (June 2002)
	AT	<u>16</u>	Kita, Y., et al., "Characterization of a polyethylene glycol conjugate of recombinant human interferon-gamma," <i>Drug Des Deliv</i> 6:157-167, Harwood Academic (1990)

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	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER							
	AR	<u>17</u>		Knauf, M.J., et al., "Relationship of effective molecular size to systemic clearance in rats of recombinant interleukin-2 chemically modified with water-soluble polymers," <i>J Biol Chem</i> 263:15064-15070, American Society for Biochemistry and Molecular Biology (1988)			
	AS	<u>17</u>		Kochendoerfer, G.G., et. al., "Design and Chemical Synthesis of a Homogeneous Polymer-Modified Erythropoiesis Protein," <i>Science</i> 299:884-887, American Association for the Advancement of Science (February 2003)			
	AT	<u>17</u>		Kossiakoff, A.A., et al., "Structural basis for cytokine hormone-receptor recognition and receptor activation," <i>Adv Protein Chem</i> 52:67-108, Academic Press, Inc. (1999)			
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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>18</u>	Kuwabara, T., et al., "Renal clearance of a recombinant granulocyte colony-stimulating factor, nartograstim, in rats," <i>Pharm Res</i> 12:1466-1469, Plenum Publishing Corporation (1995)
	AS	<u>18</u>	Larson, R.S., et al., "Physicochemical characterization of poly(ethylene glycol)-modified anti-GAD antibodies," <i>Bioconjug Chem</i> 12:861-869, American Chemical Society (November-December 2001)
	AT	<u>18</u>	Laskowski, R.A., "PDBsum: Summaries and analyses of PDB structures," <i>Nucleic Acids Res</i> 29:221-222, Oxford University Press (January 2001)

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>19</u>	Lee, L.S., et al., "Prolonged circulating lives of single-chain Fv proteins conjugated with polyethylene glycol: A comparison of conjugation chemistries and compounds," <i>Bioconjug Chem</i> 10:973-981, American Chemical Society (1999)				
	AS	<u>19</u>	Leong, S.R., et al., "Adapting pharmacokinetic properties of a humanized anti-interleukin-8 antibody for therapeutic applications using site-specific PEGylation," <i>Cytokine</i> 16:106-119, Academic Press, Inc. (November 2001)				
	AT	<u>19</u>	Li, J., et al., "Thrombocytopenia caused by the development of antibodies to thrombopoietin," <i>Blood</i> 98:3241-3248, American Society of Hematology (December 2001)				

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>20</u>	Lin, L., "Betaseron," Dev Biol Stand 96:97-104, Karger (1998)				
	AS	<u>20</u>	Lin, L.S., et al., "Interferon-beta-1b (Betaseron®): A model for hydrophobic therapeutic proteins," Pharm Biotechnol 9:275-301, Plenum Press (1996)				
	AT	<u>20</u>	Lu, H.-S., et al., "Crystal structure of human epidermal growth factor and its dimerization," J Biol Chem 276:34913-34917, American Society for Biochemistry and Molecular Biology (September 2001)				

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	AR	<u>21</u>	Manns, M.P., et al., "Peginterferon alfa-2b plus ribavirin compared with interferon alfa-2b plus ribavirin for initial treatment of chronic hepatitis C: A randomised trial," Lancet 358:958-965, Lancet Publishing Group (September 2001)				
	AS	<u>21</u>	McNiece, I.K., et al., "Stem cell factor," J Leukoc Biol 58:14-22, Wiley-Liss, Inc. (1995)				
	AT	<u>21</u>	Merrill, E.W., "Poly(ethylene oxide) star molecules: Synthesis, characterization, and applications in medicine and biology," J Biomater Sci Polymer Edn 5:1-11, VSP, The Netherlands (1993)				

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	AR	<u>22</u>	Monkarsh, S.P., et al., "Positional isomers of monopegylated interferon alpha-2a: Isolation, characterization, and biological activity," <i>Anal Biochem</i> 247:434-440, Academic Press, Inc. (1997)				
	AS	<u>22</u>	Monkarsh, S.P., et al., "Isolation of positional isomers of mono-poly(ethylene glycol)ylate interferon/alpha-2a and the determination of their biochemical and biological characteristics," in Harris, J.M., et al., eds., <i>Poly(ethylene glycol): Chemistry and Biological Applications</i> , American Chemical Society, Washington, D.C., pp. 207-216 (1997)				
	AT	<u>22</u>	Mordini, J., et al., "Interspecies scaling of clearance and volume of distribution data for five therapeutic proteins," <i>Pharm Res</i> 8:1351-1359, Plenum Publishing Corporation (1991)				

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>23</u>	Morris, A.E., et al., "Effects of insulin and LongR (3) on serum-free Chinese hamster ovary cell cultures expressing two recombinant proteins," <i>Biotechnol Prog</i> 16:693-697, American Institute of Chemical Engineers (2000)	
AS	<u>23</u>	Morris, J.C., et al., "Advances in interleukin 2 receptor targeted treatment," <i>Ann Rheum Dis</i> 59 (Suppl I):i109-i114, BMJ Publishing Group Ltd. (2000)	
AT	<u>23</u>	Morrissey, P.J., et al., "Steel factor (c-kit ligand) stimulates the in vitro growth of immature CD3-/CD4-/CD8- thymocytes: Synergy with IL-7," <i>Cell Immunol</i> 157:118-131, Academic Press, Inc. (1994)	

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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>24</u>	Nicola, N.A., "An introduction to the cytokines," in: <i>Guidebook to Cytokines and Their Receptors</i> , Nicola, N.A., ed., pp. 1-7, Oxford University Press, N.Y. (1994)				
	AS	<u>24</u>	Onuffer, J.J., et al., "Chemokines, chemokine receptors and small-molecule antagonists: Recent developments," <i>Trends Pharmacol Sci</i> 23:459-467, Elsevier Science Ltd. (October 2002)				
	AT	<u>24</u>	Oppenheim, J.J., et al., "Prospects for cytokine and chemokine biotherapy," <i>Clin Cancer Res</i> 3:2682-2686, The American Association for Cancer Research (1997)				

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	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER							
AR		25		Peitsch, M.C., "About the use of protein models," <i>Bioinformatics</i> 18:934-938, Oxford University Press (July 2002)			
AS		25		Pepinsky, R.B., et al., "Improved pharmacokinetic properties of a polyethylene glycol-modified form of interferon-beta-1a with preserved in vitro bioactivity," <i>J Pharmacol Exp Ther</i> 297:1059-1066, American Society for Pharmacology and Experimental Therapeutics (June 2001)			
AT		25		Peterson, F.C., "Identification of motifs associated with the lactogenic and somatotropic actions of human growth hormone," <i>Ph.D. Dissertation, Ohio State University, UMI # 9822357, UMI, Ann Arbor, MI</i> (1998)			

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>26</u>	Pettit, D.K., et al., "Structure-function studies of interleukin 15 using site-specific mutagenesis, polyethylene glycol conjugation, and homology modeling," <i>J Biol Chem</i> 272:2312-2318, American Society for Biochemistry and Molecular Biology (1997)				
	AS	<u>26</u>	Pungor, E., et al., "A novel bioassay for the determination of neutralizing antibodies to IFN-beta 1b." <i>J Interferon Cytokine Res</i> 18:1025-1030, Mary Ann Liebert, Inc. (1998)				
	AT	<u>26</u>	Ragnhammar, P., et al., "Induction of anti-recombinant human granulocyte-macrophage colony-stimulating factor ( <i>Escherichia coli</i> -derived) antibodies and clinical effects in nonimmunocompromised patients," <i>Blood</i> 84:4078-4087 American Society of Hematology (1994)				

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AR	27	Roberts, M.J., et al., "Chemistry for peptide and protein PEGylation," <i>Adv Drug Deliv Rev</i> 54:459-476, Elsevier Science B.V. (June 2002)					
AS	27	Ross, R.J.M., et al., "Binding and functional studies with the growth hormone receptor antagonist, B2036-PEG (pegvisomant), reveal effects of pegylation and evidence that it binds to a receptor dimer," <i>J Clin Endocrinol Metab</i> 86:1716-1723, The Endocrine Society (April 2001)					
AT	27	Rostaing, L., et al., "Pharmacokinetics of alphaIFN-2b in chronic hepatitis C virus patients undergoing chronic hemodialysis or with normal renal function: Clinical implications," <i>J Am Soc Nephrol</i> 9:2344-2348, Lippincott Williams & Wilkins (1998)					

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AR	<u>28</u>	Rozwarski, D.A., et al., "Refined crystal structure and mutagenesis of human granulocyte-macrophage colony-stimulating factor," <i>Proteins</i> 26:304-313, Wiley-Liss Inc. (1996)					
AS	<u>28</u>	Runkel, L., et al., "Systematic mutational mapping of sites on human interferon-beta-1a that are important for receptor binding and functional activity," <i>Biochemistry</i> 39:2538-2551, American Chemical Society (2000)					
AT	<u>28</u>	Rusconi, F., et al. "Quantification of sodium dodecyl sulfate in microliter-volume biochemical samples by visible light spectroscopy," <i>Anal Biochem</i> 295:31-37, Academic Press, Inc. (August 2001)					

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	AR	<u>29</u>	Sato, H., et al., "Transglutaminase-mediated dual and site-specific incorporation of poly(ethylene glycol) derivatives into a chimeric interleukin-2," <i>Bioconjug Chem</i> 11:502-509, American Chemical Society (2000)				
	AS	<u>29</u>	Sato, H., "Enzymatic procedure for site-specific pegylation of proteins," <i>Adv Drug Deliv Rev</i> 54:487-504, Elsevier Science B.V. (June 2002)				
	AT	<u>29</u>	Sayle, R.A., et al., "RASMOL: Biomolecular graphics for all," <i>Trends Biochem Sci</i> 20:374-376, Elsevier Trends Journals (1995)				

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	AR	<u>30</u>	Schein, C.H., "The shape of the messenger: Using protein structure information to design novel cytokine-based therapeutics," <i>Curr Pharm Des</i> 8:2113-2129, Bentham Science Publishers Ltd. (2002)				
	AS	<u>30</u>	Schellekens, H., "Immunogenicity of therapeutic proteins: Clinical implications and future prospects," <i>Clin Ther</i> 24:1720-1740, Excerpta Medica (November 2002)				
	AT	<u>30</u>	Schlessinger, J., et al., "Crystal structure of a ternary FGF-FGFR-heparin complex reveals a dual role for heparin in FGFR binding and dimerization," <i>Mol Cell</i> 6:743-750, Cell Press (2000)				
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	<u>31</u>	Sherman, M.R., et al., "Conjugation of high molecular weight poly(ethylene glycol) to cytokines: Granulocyte-macrophage colony-stimulating factors as model substrates," in: <i>Poly(ethylene glycol): Chemistry and Biological Applications</i> , Harris, J.M., et al., eds., pp. 155-169, American Chemical Society, Washington, D.C. (1997)				
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	AT	<u>31</u>	Sundström, M., et al., "Crystal structure of an antagonist mutant of human growth hormone, G120R, in complex with its receptor at 2.9 Å resolution," <i>J Biol Chem</i> 271:32197-32203, American Society for Biochemistry and Molecular Biology (1996)				

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	AR	<u>32</u>	Tchelet, A., et al., "Selective modification at the N-terminal region of human growth hormone that shows antagonistic activity," <i>Mol Cell Endocrinol</i> 130:141-152, North Holland Publishing (1997)				
	AS	<u>32</u>	Thiel, D.J., et al., "Observation of an unexpected third receptor molecule in the crystal structure of human interferon-gamma receptor complex," <i>Structure</i> 8:927-936, Elsevier Science Ltd. (2000)				
	AT	<u>32</u>	Utsumi, T., et al., "The role of amino functions in recombinant human tumor necrosis factor in expression of biological activity," <i>Mol Immunol</i> 29:77-81, Pergamon Press, (1992)				

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	AR	<u>33</u>	Venkatachalam, M.A., et al., "The structural and molecular basis of glomerular filtration," <i>Circ Res</i> 43:337-347, Grune & Stratton (1978)				
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	AT	<u>33</u>	Walter, M.R., et al., "Crystal structure of a complex between interferon-gamma and its soluble high-affinity receptor," <i>Nature</i> 376:230-235, Macmillan Magazines Ltd. (1995)				

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	AR	<u>34</u>	Wang, Y.-S., et al., "Structural and biological characterization of pegylated recombinant interferon alpha-2b and its therapeutic implications," <i>Adv Drug Deliv Rev</i> 54:547-570, Elsevier Science B.V. (June 2002)
	AS	<u>34</u>	Weinreich, D.M., et al., "Response rates of patients with metastatic melanoma to high-dose intravenous interleukin-2 after prior exposure to alpha-interferon or low-dose interleukin-2," <i>J Immunother</i> 25:185-187, Lippincott Williams & Wilkins (March-April 2002)
	AT	<u>34</u>	Wilson, G., "Selective hepatic uptake of synthetic glycoproteins. Mannosaminated ribonuclease A dimer and serum albumin," <i>J Gen Physiol</i> 74:495-509, Rockefeller University Press (1979)

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	AR	<u>35</u>	Wylie, D.C., et al., "Carboxyalkylated histidine is a pH-dependent product of pegylation with SC-PEG," <i>Pharm Res</i> 18:1354-1360, Plenum Publishing Corporation (September 2001)				
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	AT	<u>35</u>	Zalipsky, S., et al., "Hydrazide derivatives of poly(ethylene glycol) and their bioconjugates," In: <i>Chemistry and Biological Applications of Poly(ethylene glycol)</i> , J.M. Harris, & S. Zalipsky, eds., pp. 318-341, American Chemical Society, Washington, D.C. (1997)				

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	AR	<u>36</u>	Zhang, R-E., et al., "Synthesis and application of Fmoc-hydrazine for the quantitative determination of saccharides by reversed-phase high-performance liquid chromatography in the low and subpicomole range," <i>Anal Biochem</i> 195:160-167, Academic Press, Inc. (1991)				
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